

THAT WHICH IS CLAIMED IS:

1. An integrated circuit ferroelectric memory device, comprising:
an integrated circuit transistor;
a ferroelectric capacitor on the integrated circuit transistor, the ferroelectric
capacitor having a first electrode adjacent the transistor, a second electrode remote
5 from the transistor and a ferroelectric film therebetween; and
a plate line directly on the ferroelectric capacitor.
2. A device according to Claim 1, wherein the plate line is directly on the
second electrode of the ferroelectric capacitor.
- 10 3. A device according to Claim 1, wherein the integrated circuit
ferroelectric memory device is free of a plug between the plate line and the second
electrode.
- 15 4. A device according to Claim 3, wherein the integrated circuit
ferroelectric memory device is free of an insulating layer between the plate line and
the second electrode.
- 20 5. A device according to Claim 4, wherein the second electrode has a
width and wherein the plate line is directly on the second electrode across the width.
6. A device according to Claim 1, further comprising a stripe line
adjacent the second electrode and remote from the first electrode.
- 25 7. A device according to Claim 6, wherein the stripe line comprises
aluminum.
8. A device according to Claim 1, further comprising a stripe line
between the second electrode and the transistor.
- 30 9. A device according to Claim 8, wherein the stripe line comprises
aluminum.

10. A device according to Claim 1, wherein the first electrode comprises at least one of platinum and/or iridium dioxide.

5 11. A device according to Claim 1, wherein the ferroelectric film comprises at least one of PZT, SBT and/or BLT.

12. A device according to Claim 1, wherein the second electrode comprises at least one of iridium, ruthenium, platinum and/or iridium dioxide.

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13. A method of fabricating an integrated circuit ferroelectric memory device, comprising:

forming an integrated circuit transistor;

15 forming a ferroelectric capacitor on the integrated circuit transistor, the ferroelectric capacitor having a first electrode adjacent the transistor, a second electrode remote from the transistor and a ferroelectric film therebetween; and

forming a plate line directly on the ferroelectric capacitor.

20 14. A method according to Claim 13, wherein forming the plate line comprises forming the plate line directly on the second electrode of the ferroelectric capacitor.

25 15. A method according to Claim 13, further comprising forming a stripe line adjacent the second electrode and remote from the first electrode.

16. A method according to Claim 13, further comprising forming a stripe line between the second electrode and the transistor.

30 17. A method according to Claim 13, wherein forming the ferroelectric capacitor comprises:

forming a first electrode layer on the transistor;

forming a ferroelectric layer on the first electrode layer;

forming a second electrode layer on the ferroelectric layer; and

etching the first electrode layer, the ferroelectrode layer and the second electrode layer to form the first electrode, the ferroelectric film and the second electrode, respectively.

5 18. A method according to Claim 13, wherein forming the plate line comprises:

 forming an insulating layer on the ferroelectric capacitor;

 planarizing the insulating layer to expose at least a portion of the second electrode;

10 forming a plate line conductive layer directly on the second electrode and/or the insulating layer; and

 etching the plate line conductive layer to form the plate line directly on the second electrode of the ferroelectric capacitor.